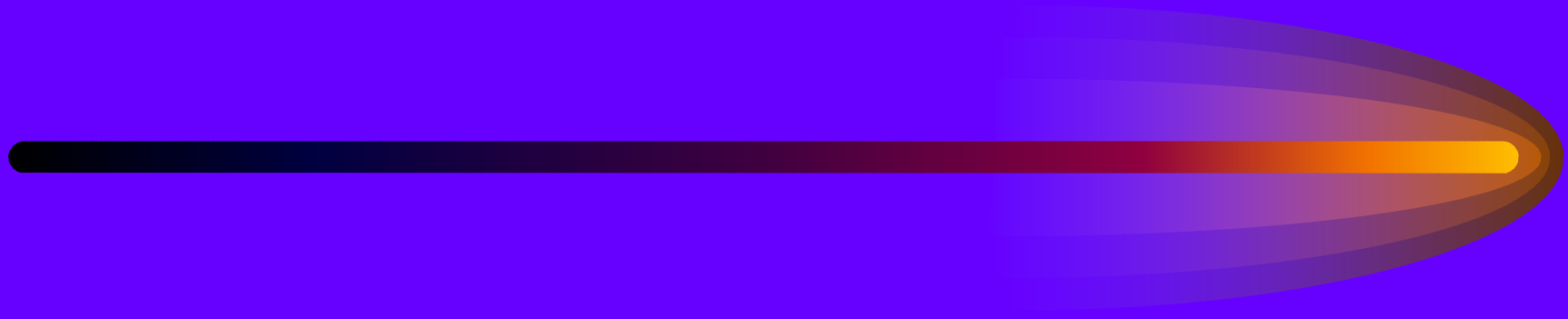
VALUES

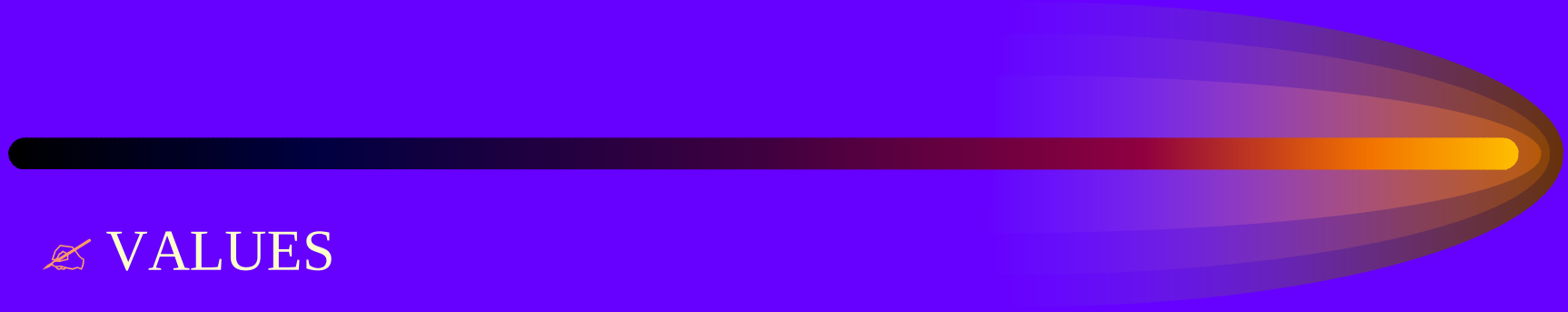


By

Doug Johnson

EPA Region 8

PRESENTATION PURPOSES



- VALUES
- VALUATION (measuring significance / utilizing economics)
- RECONCILING SOCIAL VALUES IN RANKINGS
- EXAMPLE COLORADO PLATEAU ISSUES
- EXAMPLE MODELS

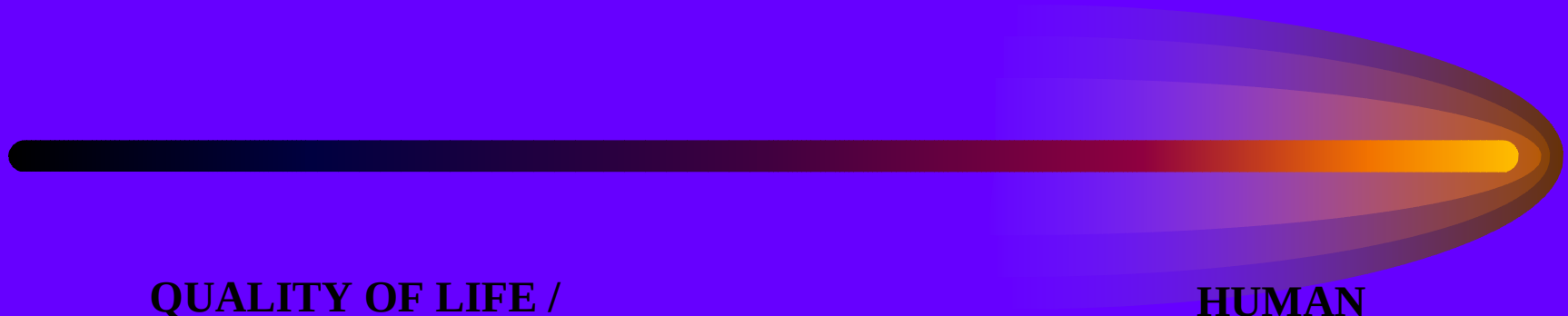
CONGRESSIONAL DECLARATION OF NATIONAL ENVIRONMENTAL POLICY

- Sec. 101 [42 USC § 4331] - 1969

- **RECOGNIZED THE PROFOUND IMPACT OF MAN'S ACTIVITY ON THE INTERRELATIONS OF ALL COMPONENTS OF THE NATURAL ENVIRONMENT**

- **DECLARED: IT IS THE POLICY OF THE FEDERAL GOVERNMENT TO COOPERATE WITH THE STATE AND LOCAL GOVERNMENTS, AND OTHER ORGANIZATIONS:**
  - **TO PRODUCE HARMONY BETWEEN MAN AND THE ENVIRONMENT**
  - **TO FULFILL THE SOCIAL, ECONOMIC AND OTHER REQUIREMENTS OF PRESENT / FUTURE GENERATIONS.**

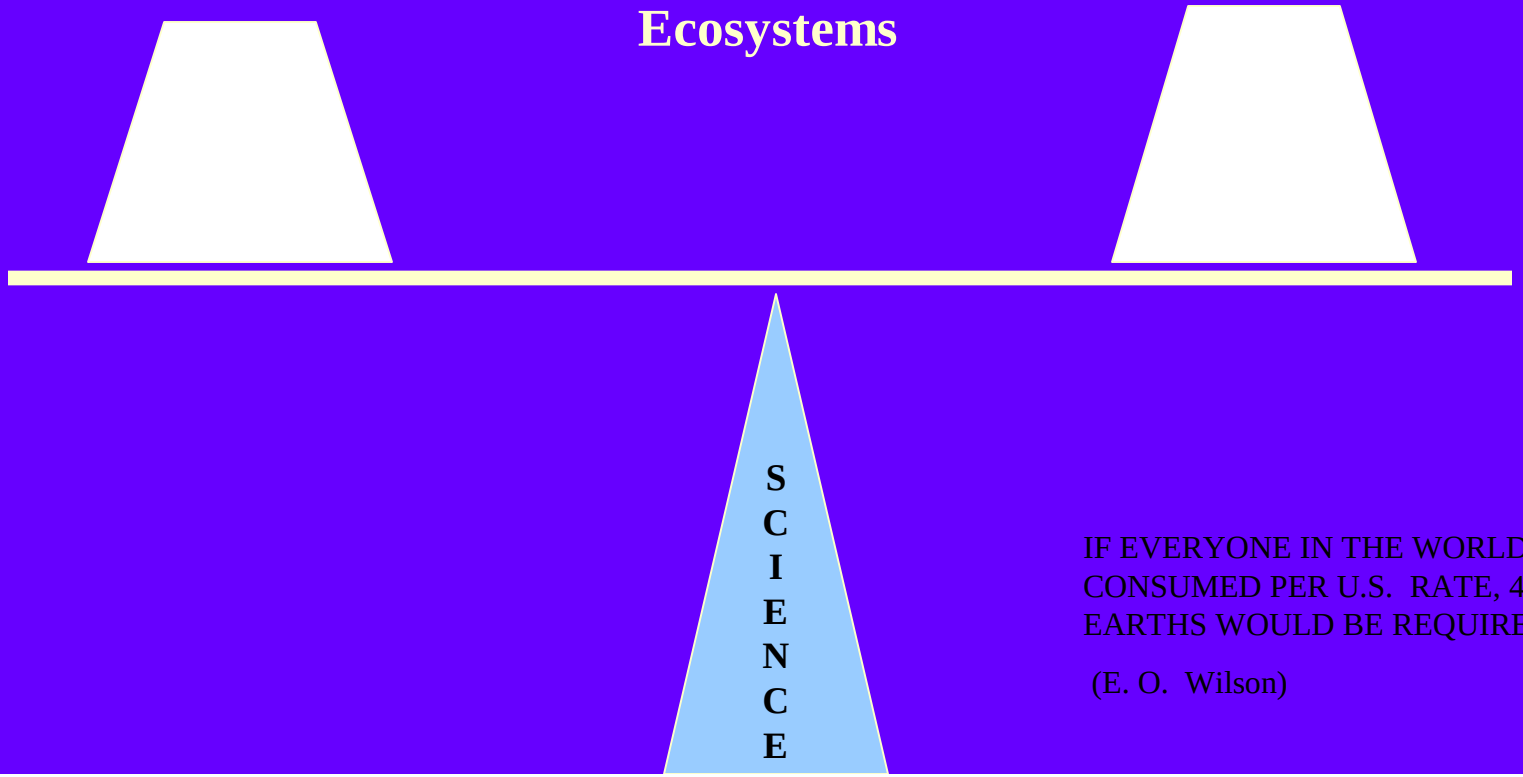
SCIENCE AND SOCIETY…striving for balance



QUALITY OF LIFE / STANDARD OF LIVING

Constrained by Ecosystems

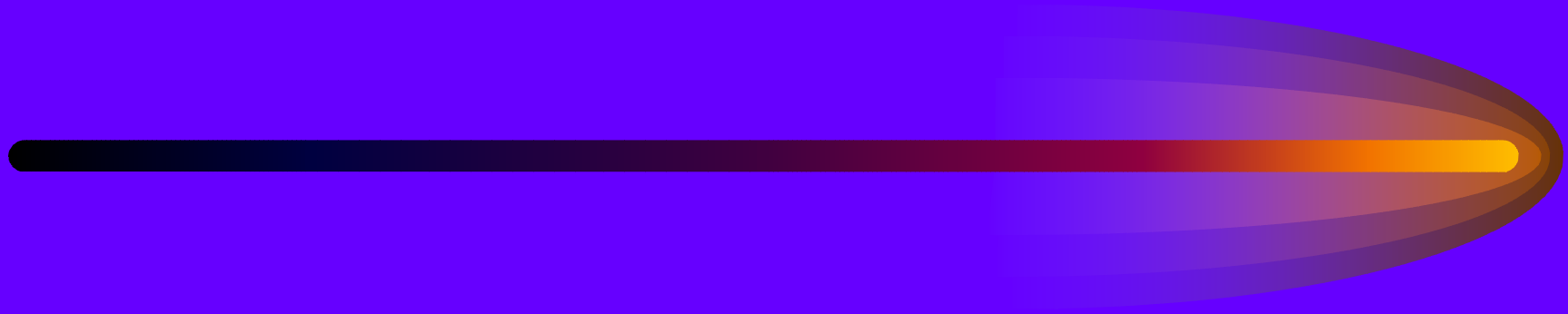
HUMAN CONSUMPTION



IF EVERYONE IN THE WORLD CONSUMED PER U.S. RATE, 4 MORE EARTHS WOULD BE REQUIRED

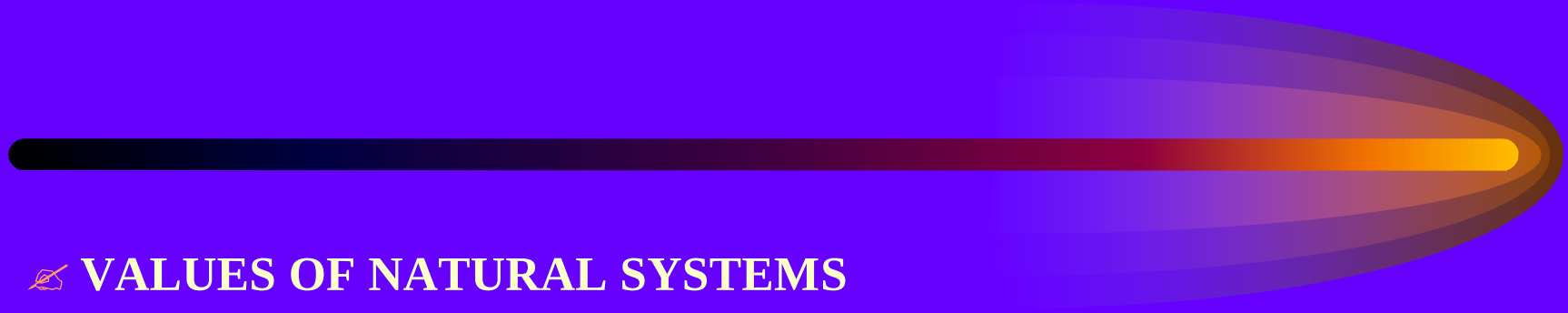
(E. O. Wilson)

VALUE OF ECOSYSTEMS



- **VALUATION IS A ‘HUMAN’ VIEW / DESIRE**
  - **ECOSYSTEM ‘VALUES’ ARE BASED ON HUMAN NEEDS OF THE NATURAL, CULTURAL, AND SOCIO/ECONONMIC DIMENSIONS / PERSPECTIVES**
    - **MUST BE CONSIDERED WITH NATURAL FUNCTION**

VALUE OF ECOSYSTEMS



- **VALUES OF NATURAL SYSTEMS**
  - **BIOLOGICAL, PHYSICAL, CHEMICAL**
- **CULTURAL**
- **SOCIO/ECONOMIC**

VALUATION

Source: VALUES and EVALUATION, Bauer 1997

- **VALUES:**
  - **USED AS CRITERIA TO DESCRIBE THE PROS / CONS OF AN OBJECT OR SITUATION.**
  - **USED TO MAKE JUDGEMENTS OR SPECIFY THE RELATIONSHIPS BETWEEN THINGS.**

VALUATION

Source: VALUES and EVALUATION, Bauer 1997

- **SOCIETY DEFINES ITS ULTIMATE GOALS IN TERMS OF GROWTH AND DEVELOPMENT**
  - **MONETARY VALUATION:**
    - **THE DEFAULT MEANS OF JUSTIFYING A DECISION (More et al, 1996)**
    - **IS READILY / EASILY USED TO MEASURE GAINS / LOSSES IN UTILITY / WELFARE (Pearce and Turner, 1990).**
    - **UNFAIRLY FAVORS COMMERCIAL INTERESTS AT THE EXPENSE OF ENVIRONMENTAL VALUES (More et al, 1996).**
    - **PROGRESS: PROBLEMS ARE NOW BEING RECOGNIZED AS MUCH VALUE-BASED AS THEY ARE FACT-BASED**
    - **SOUND DETERMINATIONS REQUIRE KNOWLEDGE OF RELEVANT FACTS AND MEANINGFUL VALUES (More et al, 1996).**

VALUATION

Source: VALUES and EVALUATION, Bauer 1997

- **VALUES, e.g., INTEGRITY AND AESTHETICS**
  - **ARE NOT CONDUCIVE TO THE ASSIGNMENT OF MARKET PRICES**
  - **HAVE RATIONAL, MORAL AESTHETIC, ECONOMIC OR SPIRITUAL PROPERTIES (More et al, 1996).**

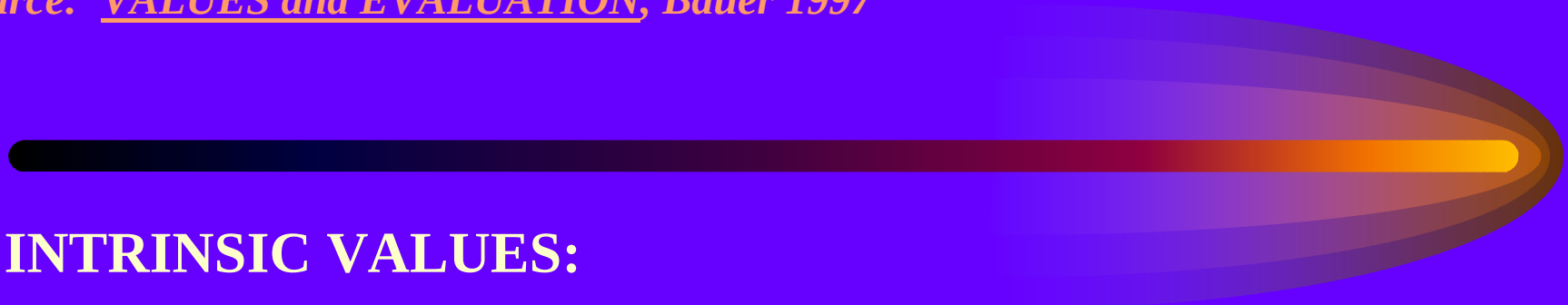
VALUATION

Source: VALUES and EVALUATION, Bauer 1997

- **QUANTIFIABLE NONMARKET ECONOMIC VALUES EXIST FOR:**
  - **LOSS OF BIODIVERSITY**
  - **PRESERVATION OF ENDANGERED SPECIES**
  - **UNIQUE ECOLOGICAL SYSTEMS HAVE VALUE BECAUSE OF THEIR USE / NONUSE**
    - **IGNORING THEM IN NATURAL RESOURCE POLICYMAKING COULD LEAD TO SERIOUS ERRORS AND RESOURCE MISALLOCATIONS (Freeman, 1993).**

VALUATION

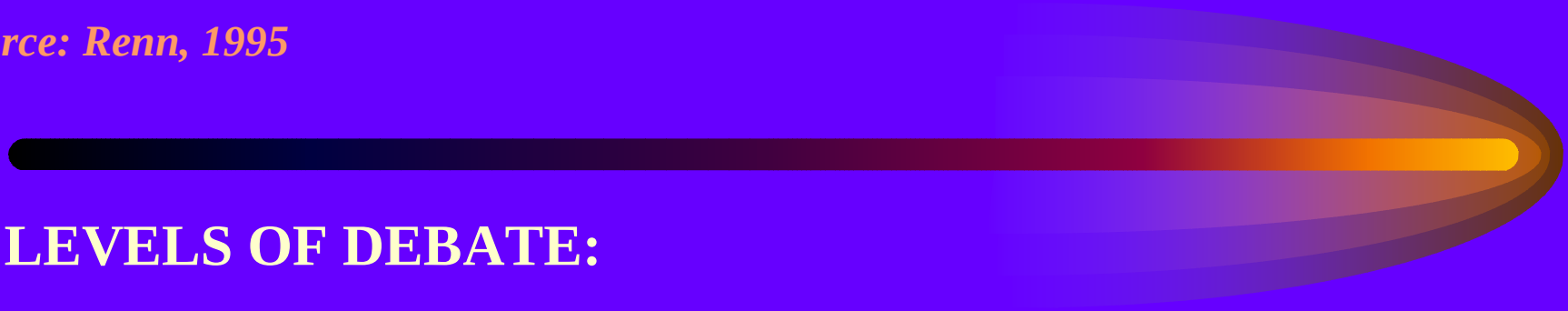
Source: VALUES and EVALUATION, Bauer 1997



- **INTRINSIC VALUES:**
  - **RECOGNIZES THAT SPECIES, INDIVIDUALS, OR THINGS, HAVE AN INNATE WORTH**
    - **THEY ARE VALUABLE IN AND OF THEMSELVES, REGARDLESS OF HUMAN BENEFITS (More et al, 1996).**
  - **RANKING OF ALTERNATIVES IS EASIER BY REFERENCING HUMAN GOALS (Westra, 1994).**
- **ATTAINMENT OF ENVIRONMENTAL SOLUTIONS DEPENDS ON:**
  - **EVALUATION OF POLICIES' INHERENT VALUES**
  - **HOW VALUES RELATE TO DECISIONS (More et al, 1996)**

ENVIRONMENTAL DEBATES

source: Renn, 1995



- **LEVELS OF DEBATE:**
  - **<u>BASE LEVEL</u>: TECHNICAL EXPERTISE DRIVES DECISIONS.**
  - **<u>MID LEVEL</u>: A TRUST FOCUS – THERE'S A PUBLIC CONFIDENCE THAT INSTITUTIONS WILL BE ABLE TO DEAL WITH ENVIRONMENTAL THREATS.**
  - **<u>HIGHEST LEVEL</u>: COMPETITION BETWEEN SOCIAL AND CULTURAL VALUES – <u>REQUIRES CONSENSUS ON THE VALUES UNDER DEBATE.</u>**
    - **STAKEHOLDER INVOLVEMENT IS CRUCIAL.**

APPROACH TO RECONCILE SOCIAL VALUES

- **ISSUE / QUESTIONS**
  - **TECHNICAL / POLITICAL / INSTITUTIONAL**
- **GATHERING DATA / INFORMATION:**
  - **SURVEY STAKEHOLDERS: e.g., QUESTIONNAIRE, PHOTOS**
  - **DIALOGUE: OPEN FORUMS: e.g., LISTENING CIRCLES, FOCUS GROUPS**
- **INTERPRET / CATEGORIZE, RANK / WEIGHT, MODELING**
- **OUTPUTS**
- **OUTCOMES**

APPROACH TO RECONCILE SOCIAL VALUES

- **LEVEL THE PLAYING FIELD!**
  - **DEFINE / CONTINUOUSLY ADDRESS COMMON INTERESTS / VALUES**
    - **FACTOR IN HOW MUCH TIME / $s**
  - **THEORETICAL STAKEHOLDERS GOAL: 1 ISSUE / 1 VOICE**
  - **SOCIETY DOES NOT ASSESS EVERYTHING, BECAUSE IT CANNOT AFFORD TO – THERE ARE GAINS AND LOSSES**
  - **PRESENT STAKEHOLDERS WITH EASY TO UNDERSTAND / BALANCED INFORMATION AND PROCESS**

APPROACH TO RECONCILE SOCIAL VALUES

- **LEVEL THE PLAYING FIELD!**
  - **PROVIDE FORUM FOR DIALOGUE / FEEDBACK / EVALUATION**
  - **ACKNOWLEDGE MULTIPLE / COMPETING VALUES / NEEDS**
    - **BRING TOGETHER WHERE FEASIBLE**
  - **SCIENCE SHOULD MINIMIZE BIASES**
    - **RESULTS: CONFIDENCE IN PROCESS / PRODUCTS**
  - **INTEGRITY, TRUTH, AND TRUST**
    - **CHANGES IN BEHAVIOR CAN OCCUR WHEN ATTITUDES CHANGE**
      - **TIME INVESTMENT**

APPROACH TO RECONCILE SOCIAL VALUES

source: Robin Cantor, LECG Environmental Practice

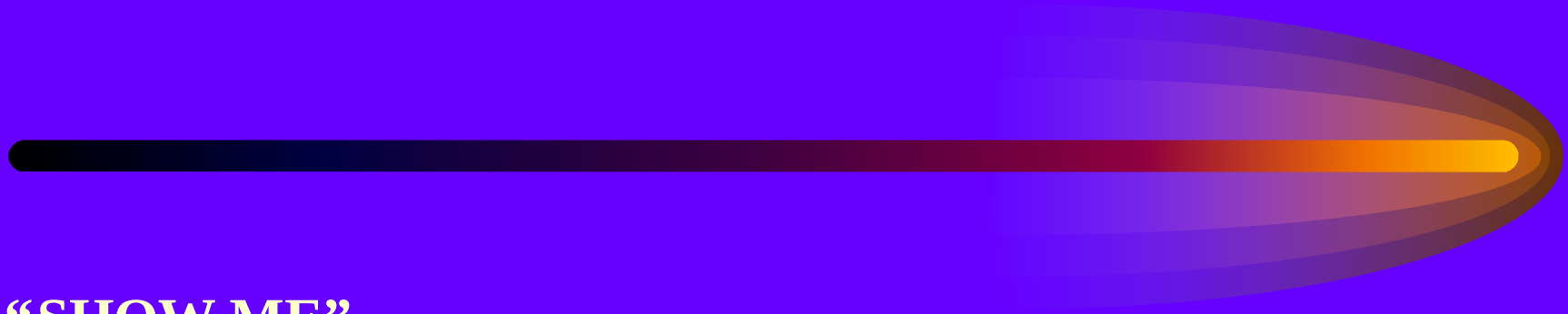
- **EMPHASIZE KEY ECOLOGICAL FEATURES**
  - **BIO-PHYSICAL ATTRIBUTES, e.g., VEGETATION, FLORA / FAUNA**
  - **BIO-PHYSICAL FUNCTIONS, e.g., WATER FILTRATION, HABITAT SUPPORT**
  - **PRODUCTION OF GOODS AND SERVICES, e.g., FLOOD CONTROL, RECREATIONAL EXPERIENCES**

APPROACH TO RECONCILE SOCIAL VALUES

source: Robin Cantor, LECG Environmental Practice

- **EMPHASIZE KEY ECONOMIC FEATURES**
  - **INTERDEPENDENCIES**
    - **LANDSCAPE INFLUENCES**
    - **REGULATORY AND TAX SYSTEMS**
  - **TEMPORAL BOUNDARIES**
  - **SPATIAL BOUNDARIES**
  - **SCARCITY AND SUSTAINABILITY**
  - **UNCERTAINTY**

PROOF: RECONCILING SOCIAL VALUES



- **“SHOW ME”**
  - **EA PRINCIPLES, POLICIES, PRODUCTS AND PRACTICES MUST REFLECT STAKEHOLDER VALUES**

EXAMPLE COLORADO PLATEAU ISSUES

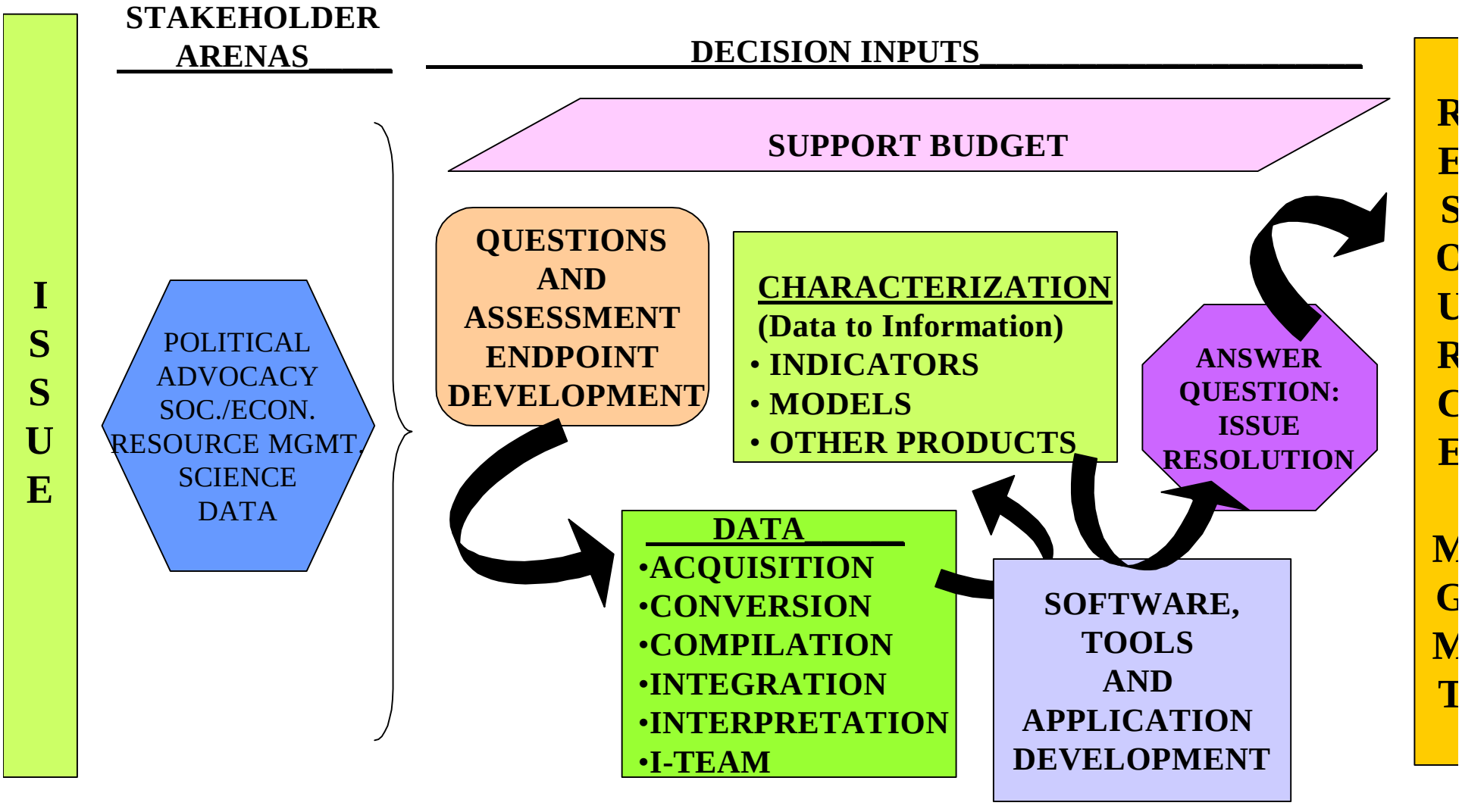
- ENERGY: CBM / OIL / OIL SHALE: R8 CPA - USGS
- RIPARIAN HABITAT: R8 CPA
- AIR QUALITY: R8 CPA
- ECOSYSTEM FRAGMENTATION: BLM PILOT - EPA – USGS
- DATA SHARING – CPDCG

- CONGESTION IN THE NPs
- ROADLESS AREA MANAGEMENT
- WATER QUALITY / WATER QUANTITY
- GRAZING

EXAMPLE COLORADO PLATEAU ISSUES

- HABITAT LOSS / DEGRADATION
- EXOTIC SPECIES / T & E SPECIES / BIODIVERSITY
- QUALITY OF LIFE IMPACTS AND CULTURAL CHANGES – STANDARD OF LIVING
- URBANIZATION ON / ADJACENT TO THE PLATEAU
- MINING
- MINING THE SCENERY
- SILVICULTURE

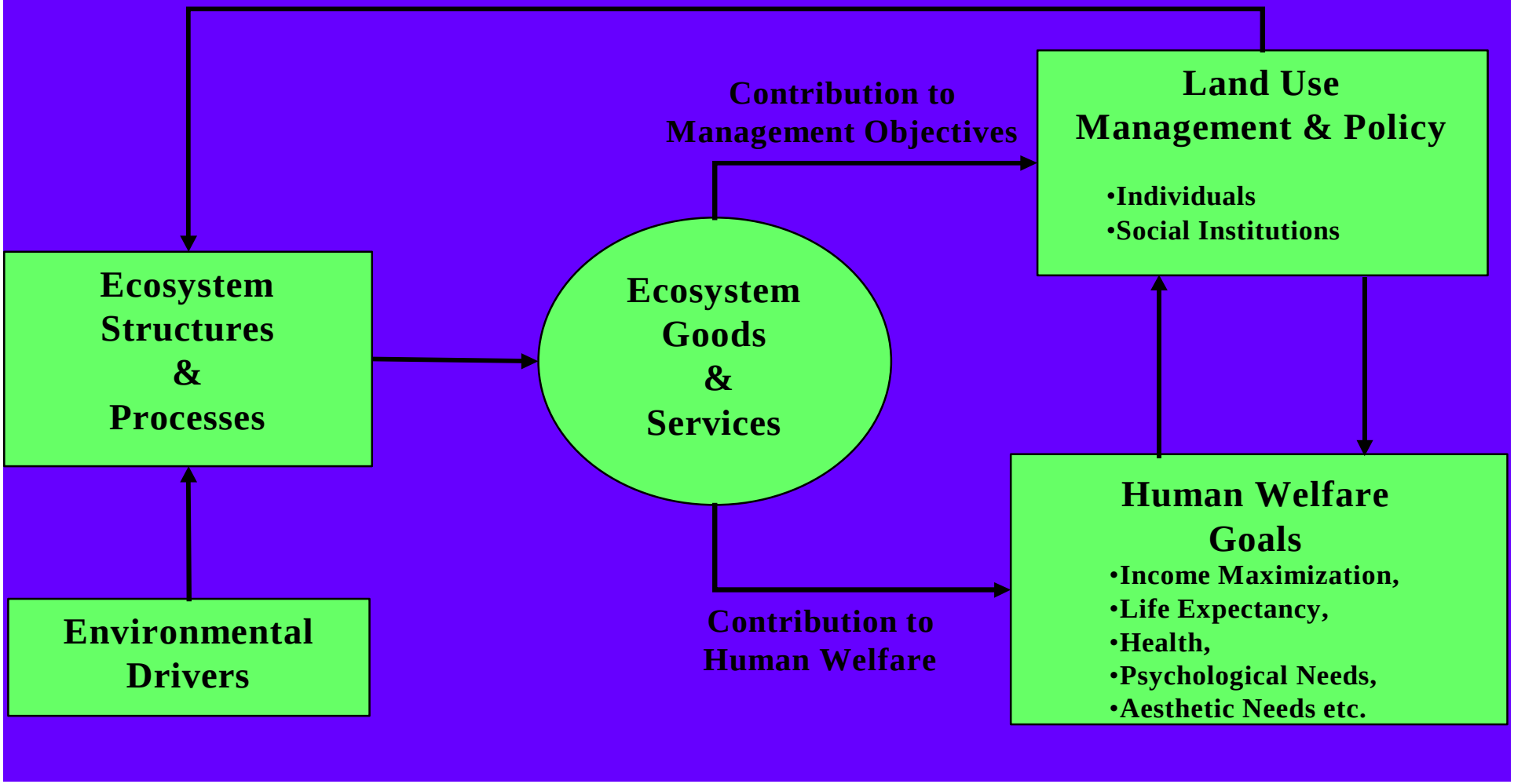
CP DECISION SUPPORT SYSTEM



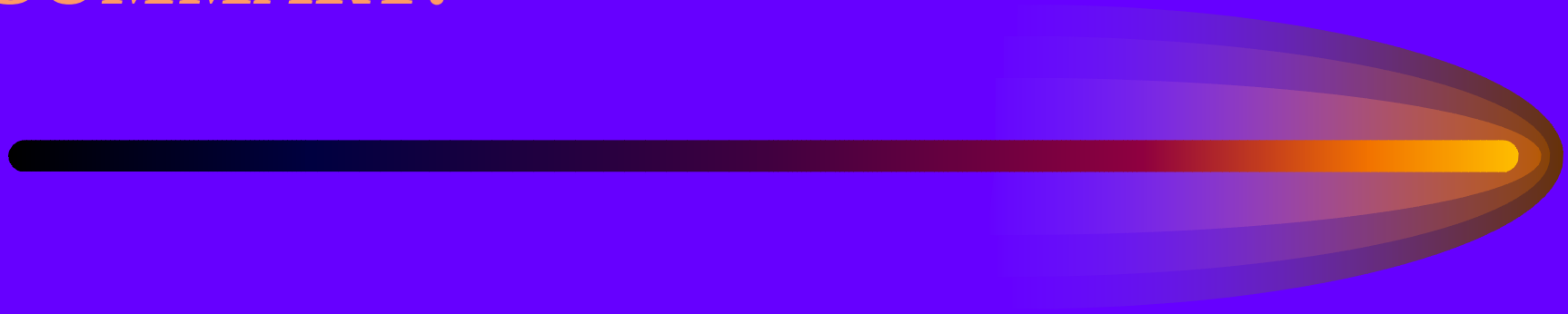
By: Karl Hermann/Doug Johnson, R8,1/26/0

Framework for the Integrated Assessment of Coupled Natural and Human Systems Across LTER Sites

Source: Gund Institute for Ecological Economics, University of Vermont



SUMMARY:



- **OPTIMAL ECOSYSTEM STEWARDSHIP REQUIRES**
  - **AGREEMENT ON VALUES SET**
    - **A JOINT VISION ON DESIRED RESULTS**
    - **SOUND SCIENCE**
    - **AND A WILLINGNESS TO COLLABORATE**

WARNING…

- **AND, IF WE DON'T DO A BETTER JOB…**


Don't make me come down there.
-God
04912B
OUTDOOR SYSTEMS